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HINTONELLA, A NEW GENUS OF THE ORNITHOCEPHALEAE FROM MEXICO

BY
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IN FEBRUARY, 1938, I received for study from the Royal Botanic Gardens, Kew, two packets containing specimens of a Mexican orchid collected by George Hinton in the District of Temascaltepec. These specimens were clearly referable to the Ornithocephaleae, but the pollinia were imperfect. Subsequently twenty-three specimens (*Hinton 8928*) were received and these made possible a thoroughgoing study of the generic characters.

In May 1938, my colleague Dr. Louis O. Williams, collected fruiting specimens of this species in the mountains northwest of Cuernavaca. The withered remains of the perianth were still in perfect condition and not only made identification possible but furnished additional evidence regarding the later stages of development of the vegetative and fruiting organs.

Hintonella is a member of the Ornithocephaleae as interpreted by Rudolf Schlechter. It is closely allied to the Brazilian genera *Phymatidium* and *Chytroglossa*. I have interpreted the column as being produced into a fleshy bilobed foot to which the lateral sepals are adherent. The point of union is just below the basal, stigmatic orifice. In some of the better preserved flowers the presence of a distinct foot to which the labellum is rigidly

attached is very clear, but in other specimens the labellum appears to arise from the column just below the stigmata and to bear the lateral sepals on its base. As the presence or absence of a column-foot is structurally important for the recognition of sections in the Ornithocephaleae, I have emphasized this point.

The genera of the Ornithocephaleae are prevalently Brazilian. Only *Cryptarrhena*, *Ornithocephalus* and *Zygostates* are known to occur in Middle America. From these genera *Hintonella* is markedly distinct. To find more closely allied genera it is necessary to bridge the great geographical gap between Mexico and Brazil. True, *Sphyrastylis*, at present known only from Antioquia in Colombia, and *Dipteranthus*, reported from Peru by Rudolf Schlechter, indicate the presence of allies in the intervening space. But these genera are also markedly different from *Hintonella* and emphasize the significance of geographical isolation.

***Hintonella* Ames gen. nov.**

Divisio: Acrotonae. Tribus: Kerosphaereae. Subtribus: Ornithocephaleae. Perianthii partes liberae. Sepala subconniventia, extus per medium conspicue carinata. Petala sepalis similia, membranacea. Labellum leviter trilobum, cum columnae basi continuum, prope basim leviter saccatum. Discus per medium carinatus, medio lamina transversa membranacea ornatus, prope junctionem cum columna callo recurvato instructus. Columna prope medium constricta, exalata, in pedem producta; stigma infra medium columnae. Anthera subglobosa, imperfecte bilocularis, in appendicem brevem producta. Pollinia quattuor, cerea, distincta, stipiti longiusculo membranaceo affixa. Ovarium hexalatum. Capsula globosa, leviter alata.

Herbae pusillae, epiphyticae, dense caespitosae, pseu-

dobulbosae, caulibus abbreviatis, pseudobulbo minuto unifoliato terminatis. Folia sub pseudobulbo pauca, disticha, articulata, coriacea, ensiformia. Scapi sub pseudobulbo axillares, laxe pauciflori, foliis breviores.

Hintonella mexicana *Ames sp. nov.*

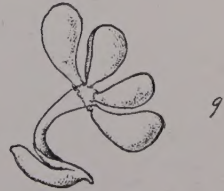
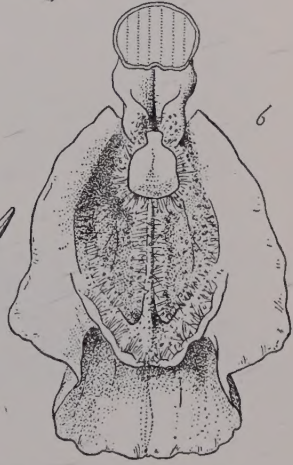
Herba perpusilla, epiphytica. Radices fibratae, albiae. Caules abbreviati, pseudobulbo unifoliato minuto terminati. Folia sub pseudobulbo pauca, disticha, ensiformia. Scapi foliis breviores, pauciflori, sub pseudobulbo axillares. Pedicellus cum ovario alatus, glaber. Sepala lateralibus oblonga, usque ad apicem attenuata, extus per medium carinata. Sepalum dorsale simile. Petala oblonga vel cuneato-oblonga, usque ad basim leviter attenuata, uninervia, apice apiculata, extus per medium leviter carinata. Labellum sepala lateralibus aequans, leviter trilobatum; lobi laterales rotundati; lobus medius quadratus. Discus infra medium dense glandulosus, prope medium callo transverso glanduloso membranaceo ornatus, intus infra medium carinatus, prope columnae basim callo vel processu pedicellato reflexo ornatus. Columna prope medium valde constricta, basi in pedem bilobum producta; stigma infra columnae medium. Pollinia anguste pyriformia, stipiti longiusculo affixa.

An epiphytic herb up to 2.3 cm. tall at anthesis. Roots spreading, whitish, about 1.5 mm. in diameter. Stems ascending from the rhizome and terminating in small ellipsoid or globose pseudobulbs which are 2.3-5 mm. long, monophyllous at the summit with several distichous cataphylls. Leaves ensiform, 1-2.3 cm. long, 2 mm. wide, jointed to winged distichous sheaths. Peduncles lateral, 4-13 mm. long, arising in the axils of the equitant leaf-sheaths, commonly 2-flowered, shorter than the leaves. Bracts of the inflorescence 1.5 mm. long, conduplicate. Pedicels including the ovary about 4 mm.

EXPLANATION OF THE ILLUSTRATION

HINTONELLA MEXICANA *Ames gen. et sp. nov.* Plant natural size (2 and 8), the fruiting specimen drawn from *Williams 3799*. 1, 3 and 4, flower much enlarged. 5 and 6, labellum and column much enlarged. 7, column, anther, base of labellum showing basal callus much enlarged. 9, pollinia much enlarged.

*Drawn with the aid of the camera lucida,
October 1938, by* BLANCHE AMES



long, hexagonal. Ovary conspicuously 6-winged, becoming spherical at maturity; ripe capsule lightly winged, 4 mm. long. Flowers about 5.5 mm. long with the perianth segments more or less connivent (yellowish when dry). Lateral sepals 5 mm. long, about 1.5 mm. wide, oblong, abruptly tapering to the subacute apex, conspicuously keeled along the middle on the outer surface, membranaceous. Dorsal sepal similar. Petals 5 mm. long, 2 mm. wide, oblong or somewhat oblong-cuneate, rounded at the apex, obscurely acute, keeled externally along the mid-nerve. Labellum about 5 mm. long, about 3 mm. wide, lightly saccate at the base, obscurely 3-lobed with the lateral lobes rounded and the terminal lobe quadrate. Disc of the labellum copiously glandulose with a reflexed callus near the base from which a conspicuous keel extends to a centrally situated, crescentiform, glandulose, transverse membranous callus. Column constricted below the middle, produced into a bilobed foot, free portion 2 mm. long; clinandrium oblique; stigmatic orifice basal and near the point of origin of the bilobed foot. Anther semiglobose, shortly produced in front into a triangular point. Pollinia 4, in pairs at the summit of a narrowly oblong stipe.

MEXICO: epiphyte on *Ternstroemia Pringlei*, La Labor, District of Temascaltepec, February 21, 1936, *George B. Hinton 8928* (TYPE in Herb. Ames No. 49612. DUPLICATE TYPE in Herb. Kew); Comunidad, January 3, 1936, *Hinton 8951*; epiphyte, near Tepeyte, mountains northwest of Cuernavaca, Morelos, at 2200-2600 meters altitude, May 15, 1938, *Louis O. Williams 3799*.

A CORRECTION

BY

LOUIS O. WILLIAMS

DR. VICTOR S. SUMMERHAYES of the Royal Botanic Gardens, Kew, has called my attention to an error that I made in describing a plant which I thought to be an Orchis. Dr. Summerhayes has noted the similarity of my *Orchis constricta* to the much older *Habenaria camptoceras* Rolfe.

Dr. Summerhayes considers the plant as belonging to Schlechter's genus *Neottianthe* (a genus which we have not accepted as distinct from *Habenaria*), remarking that "This appears to be a true *Neottianthe* although very aberrant in its large single flower."

The synonymy of the species is as follows:

***Habenaria camptoceras* Rolfe** in Journ. Linn. Soc. 29 (1892) 319.

Gymnadenia camptoceras Schlechter in Fedde Repert. Beihefte 4 (Orch. Sino-Jap. Prodr.) (1919) 104.

Neottianthe camptoceras Schlechter in Fedde Repert. 16 (1919) 292.

Orchis constricta L. O. Williams in Bot. Mus. Leaflet. Harv. Univ. 5 (1938) 164.

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